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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,529	08/17/2001	Christopher Gregory Malone	10007433-1	4289

7590

10/02/2002

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EXAMINER

DINH, TUAN T

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 10/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/932,529

Applicant(s)

MALONE ET AL.

Examiner

Tuan T Dinh

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-12, 17 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13, 15, 16, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 09 July 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant's election of Invention III (claims 13, 15-16, and 19-20) in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election **without traverse** (MPEP § 818.03(a)).

#### ***Claim Objections***

2. Claim 13 is objected to because of the following informalities:

Claim 13, line 10, change "a daughter-card printed circuit board" to --the or said daughter-card printed circuit board--.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 15, line 2, it is confuse. Does applicant meant of "a daughter-card is same as one or more daughter-card printed circuit boards (claim 13, line 4) or does applicant meant "a daughter-card" which is different from the daughter-card printed circuit boards?

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 13, 15 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheng et al. (U. S. Patent 5,901,038).

As to claim 13, Cheng discloses an assembled substrate as shown in figures 1-16 comprising:

a motherboard substrate (125, column 3, lines 66-67) including **one or more** electrical components (136, column 4, lines 27-28);

a daughter-card printed circuit board (PCB) (power supply-140), wherein said daughter-card PCB (104) includes an electrical component; and

a daughter-card support (105, column 3, lines 63-64) to structurally support said daughter-card PCB in fixed orientations relative to said motherboard substrate (see figures 3-6), said daughter card support (105) supplying structure (frame 115) rigidity to said daughter-card PCB (column 6, lines 60-67, column 7, lines 1-5) with said daughter-card PCB inserted into said daughter-card support (column 6, lines 39-53).

As best understood to claim 15, Cheng discloses an assembled substrate as shown in figures 1-16 wherein said daughter-card support (105) further comprises one or more electrical connections (120, column 4, line 29) to a daughter-card (140) (power buses 120 having socket 205, which is electrical connected to a power supply 140).

As to claim 19, Cheng discloses an assembled substrate as shown in figures 3-6 wherein said daughter-card support allows hand replacement of said daughter-card substrate.

As to claim 20, Cheng discloses an assembled substrate as shown in figure 2 wherein said daughter-card support (105) has a plurality of air-flow channels (the spaces between frame 115 and legs 110 construct the air can flow from a bottom of the frame 115), wherein each air-flow channel includes one or more holes.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng et al (U. S. Patent 5,901,038) in view of Wever et al. (U. S. Patent 5,805,423).

As to claim 16, Cheng discloses all of the limitations of the claimed invention, except for said daughter-card support being fabricated from a material made from plastic. Wever shows a plastic ring (2) designed to hold a battery (4) capable of being a plastic daughter-card support for a daughter-card PCB disclosed in figure 1

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the plastic supported to the daughter card as taught by

Wever to employ the assembled substrate of Cheng in order to protect an ESD from the daughter card and make low cost for manufacture.

***Response to Arguments***

9. Applicant's arguments filed 7/9/02 have been fully considered but they are not persuasive.

Applicant argues:

(a) Cheng does not show a daughter-card printed circuit board (PCB).

(b) Cheng does not show a daughter-card support.

(d) Cheng does not show a daughter-card PCB inserted into a daughter-card support.

(e) Cheng does not show "said daughter-card support supplying...daughter-card support.

Examiner disagrees.

Response to argument (a), Cheng clearly discloses a power supply mounted on a mounting structure of a motherboard as shown in figures 1-16. The power supply can be name in different ways of user to name, the power supply can be call or name power supply board, power daughter board, power supply daughter board, or printed circuit board. Therefore, the power supply is a daughter-card PCB for the motherboard.

Response to argument (b), Cheng discloses a mounting structure (105-figure 1), which support for the power supply (or daughter-card PCB) mounting on the structure (105). The structure comprises a frame and legs structure support for the daughter-card PCB mounted on the motherboard.

Response to argument (d) and (e), Cheng discloses "said daughter-card...daughter-card support" in figures 3-6 (column 6, lines 39-67, column 7, lines 1-10).

### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T Dinh whose telephone number is 703-306-5856. The examiner can normally be reached on M-F.

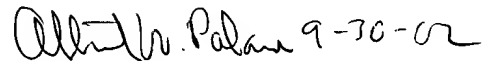
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-1341 for regular communications and 703-305-1341 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

**TD**  
September 24, 2002.

  
**ALBERT W. PALADINI**  
**PRIMARY EXAMINER**